

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

<b>RTIP ID#</b> <i>(required)</i> ORA000122				
<b>TCWG Consideration Date</b> November 23, 2010				
<b>Project Description</b> <i>(clearly describe project)</i> On Interstate 5 in the city of Laguna Hills, modify the La Paz Road undercrossing structure to accommodate a wider typical cross section on La Paz Road and widen the s/b off-ramp. Improvements include: widening the existing southbound off-ramp to provide four lanes accommodating dual left-turn lanes, a through-right lane and an exclusive right turn lane; modifying the southbound loop on-ramp to allow for a free right-turn lane for westbound La Paz Road onto the southbound I-5 on-ramp; realign La Paz Road to provide a second left-turn lane for motorists travelling westbound at the intersection of La Paz Road and Cabot Road; widen eastbound La Paz Road under the I-5 between bridge bents and abutment of provide for an exclusive southbound on-ramp and n/b loop on-ramp entrance to I-5; right of way acquisition for the construction of a retaining wall along the northwest corner of Cabot Road and La Paz Road.				
<b>Type of Project</b> <i>(use Table 1 on instruction sheet)</i> Reconfigure existing interchange.				
<b>County</b> Orange	<b>Narrative Location/Route &amp; Post miles</b> Interstate 5; 16.5-16.7  <b>Caltrans Projects – EA#</b> 0H021			
<b>Lead Agency:</b> California Department of Transportation (Caltrans)				
<b>Contact Person</b> Arman Behtash	949-724-2029	<b>Fax#</b> 949-756-7633	<b>Email</b> Arman_Behtash@dot.ca.gov	
<b>Hot Spot Pollutant of Concern</b> <i>(check one or both)</i> <b>PM2.5</b> <input checked="" type="checkbox"/> <b>PM10</b> <input checked="" type="checkbox"/>				
<b>Federal Action for which Project-Level PM Conformity is Needed</b> <i>(check appropriate box)</i>				
<input checked="" type="checkbox"/> <b>Categorical Exclusion (NEPA)</b>	<input type="checkbox"/> <b>EA or Draft EIS</b>	<input type="checkbox"/> <b>FONSI or Final EIS</b>	<input type="checkbox"/> <b>PS&amp;E or Construction</b>	<input type="checkbox"/> <b>Other</b>
<b>Scheduled Date of Federal Action:</b> CE signed 4/14/09; Revalidation pending TCWG decision				
<b>NEPA Delegation – Project Type</b> <i>(check appropriate box)</i>				
<input type="checkbox"/> <b>Exempt</b>	<input checked="" type="checkbox"/> <b>Section 6004 – Categorical Exemption</b>	<b>Section 6005 – Non-Categorical Exemption</b>		
<b>Current Programming Dates</b> <i>(as appropriate)</i>				
	<b>PE/Environmental</b>	<b>ENG</b>	<b>ROW</b>	<b>CON</b>
<b>Start</b>	7/1/05	7/1/08	7/1/08	4/1/11
<b>End</b>	4/2/08	4/1/11	3/26/12	11/1/13

**Project Purpose and Need (Summary):** *(attach additional sheets as necessary)*

The primary purpose of the project is to improve the existing roadway geometrics that cause congestion and operational deficiencies during the a.m. and p.m. peak periods. Currently, the weaving distance at the interchange is restrictive. Traffic flow would be improved with the added turning lanes and ramp improvements.

The need for this project arises from the current geometrical constraints within the study area. Due to the close proximity between the freeway ramp entrances and intersections, weaving distance is restrictive leading to a right lane overload condition in both the westbound and eastbound directions on La Paz Road during peak hour demand periods. This compounded with the narrow width under I-5 creates a choke point on La Paz Road at the interchange. This choke point not only has major traffic impacts to the intersections at Cabot Road and Muirlands Boulevard, it also creates traffic congestion on the freeway on- and off-ramps as well. This congestion results in high level delays on La Paz Road and I-5, in both directions. The worst traffic condition occurs on the southbound off-ramp to La Paz Road during the PM peak hour, where queue lengths can reach the freeway. The ramp currently has a PM peak hour volume of 1,575 vehicles per hour, and is projected to increase to 1,750 vehicles per hour (vph) in the year 2030.

The La Paz Road undercrossing is identified by the Orange County Transportation Authority (OCTA) as one of the twelve worst county choke-points designated for improvement. The proposed project improvements are needed to address the following issues:

- Unacceptable Level Of Service (LOS).
- Inadequate intersection capacity to accommodate the existing and projected arterial demand.
- Choke point at La Paz Road underneath I-5 freeway due to the lane reduction from six to four lanes.
- Traffic congestion on the I-5 on and off-ramps.
- Adjacent signalized intersections at close proximity to this interchange.

**Surrounding Land Use/Traffic Generators** *(especially effect on diesel traffic)*

The project area is zoned Freeway Commercial/Commercial Community. Other land uses in the project vicinity include residential and open space. La Paz Road is a major link between the cities of Laguna Hills and Mission Viejo. Interstate 5 (I-5) passes directly over La Paz Road with on/off ramps providing access to the road

**Opening Year:** Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

**RTP Horizon Year / Design Year:** Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility



**Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

See chart attached.

**RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT**

See chart attached.

**Describe potential traffic redistribution effects of congestion relief (*impact on other facilities*)**

Improved level of service (LOS) through the intersection; improved intersection capacity to accommodate existing and projected demand; elimination of a choke point; alleviate congestion on the on/off ramps; improved turning capabilities in the intersection

**Comments/Explanation/Details (*attach additional sheets as necessary*)**

The project area does not have significant truck volumes. No counts were taken in the environmental analysis phase.

The project is a local street improvement with no mainline capacity changes.

# AADT - Opening Year (2010)

Study Segment	No Build		Build	
	Total AADT	Truck AADT	Truck %	Truck %
La Paz Road (Laguna Hills)	20,400	N/A	N/A	N/A
La Paz Road (Mission Viejo)	41,200	N/A	N/A	N/A

# LOS - Opening Year (2010)

Study Segment	No Build		Build	
	AM	PM	AM	PM
La Paz Road (Laguna Hills)	D	F	C	F
La Paz Road (Mission Viejo)	D	E	C	D

# AADT - Horizon Year (2012)

Study Segment	No Build		Build	
	Total AADT	Truck AADT	Truck %	Truck %
La Paz Road (Laguna Hills)	23,300	N/A	N/A	N/A
La Paz Road (Mission Viejo)	47,800	N/A	N/A	N/A

# LOS - Horizon Year (2012)

Study Segment	No Build		Build	
	AM	PM	AM	PM
La Paz Road (Laguna Hills)	D	F	D	F
La Paz Road (Mission Viejo)	D	E	E	F